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ABSTRACT

This comparative study on craft apprenticeship in Europe is divided into four parts. An introductory section analyzes developments and trends in apprenticeship training in Europe. The second section is a view of vocational training derived from interviews with European commission officials. Some common issues in apprenticeship training in Denmark, Eire, France, Netherlands, United Kingdom, and West Germany are then examined. They include definitions of apprenticeship; legislation; participating bodies; component parts of the apprenticeship program; education, training, and work experience; starting age and duration of apprenticeship; formal qualifications and examinations; guidance and supervisory services; reform and development; take-up rates; and examples of ranges of trades involved. Appendixes provide background material on the European community, including the structure of the European economic community, vocational education and training, and general educational policy. They also provide a summary of general principles for vocational training agreed upon by the Council of Ministers in 1963. (YLB)

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1979

CRAFT APPRENTICESHIP IN EUROPE

By David Parkes

Contents

FOREWORD 1

INTRODUCTION 2

VOCATIONAL TRAINING: SOME EUROPEAN COMMISSION VIEWS 6

APPRENTICESHIP - COMPARISON AMONG DENMARK, EIRE, FRANCE, NETHERLANDS, UNITED KINGDOM, AND WEST GERMANY under the headings of: 9

1. Definitions of Apprenticeship 10

2. Legislation 11

3. Participating Bodies 13

4. Component Parts of the Apprenticeship Programme: Education, Training, Work Experience 16

5. Starting Age and Duration of Apprenticeship 18

6. Formal Qualifications and Examinations 19

7. Guidance and Supervisory Services 22

8. Reform and Development 24

9. Take-up Rates 26

10. Examples of Ranges of Trades Involved 32

APPENDIX I Background to the European Community 39

APPENDIX II Background to the European Community Vocational Training Principles 43

SOURCE MATERIAL 47

FOREWORD

Comparative studies throw light on hidden assumptions in one's own system, inform on proposed partners in a relationship, and identify general trends earlier than might be the case in concentrating on a single system. In that context this paper is divided into four parts:

1. An introductory section which analyses developments and trends in apprenticeship training in Europe.

2. A view of vocational training derived from interviews with EEC officials.

3. A detailed examination of some common issues in apprenticeship training in Denmark, Eire, France, Netherlands, United Kingdom, and West Germany.

4. A more general background to the European Commission, including a summary of general principles for vocational training agreed by the Council of Ministers in 1963.

The material used in this paper is derived from extended visits to the Commission's headquarters in Brussels and short study visits to a cross section of the countries used in the paper. Source documents were collected from the EEC and OECD.

Coombe Lodge is grateful for study visit assistance from the Central Bureau for Educational Visits & Exchanges.

This publication has been prepared in response to needs and questions arising from members attending courses on developments in craft training and education at Coombe Lodge, the Further Education Staff College.

INTRODUCTION

Vocational training can be defined as the process whereby persons over the statutory school leaving age can obtain, update and improve the knowledge and skills required for the exercise of a vocational activity. This comprises initial training, further training and retraining.

The following problems of some familiarity to the UK can be identified within the nine member countries of the European Community:

1. Despite efforts of co-ordination and the allocation of grovernment resources - training takes place in a loose grouping of institutions and bodies, many of which are geared towards multiple and divergent objectives.
2. Member countries are orientated towards the adjustment rather than the fundamental revision of their training systems.
3. Priority is given in all member states to the training of young persons.
4. There is a recognition of the problem of the general education content of vocational training and the vocational content of general education.
5. Some countries have identified the problem of the provision of recurrent education within the framework of the labour market.

This paper examines similarites and differences in apprenticeship training among five countries (Denmark, Eire, France, Netherlands and West Germany) and compares them with the UK. The source documents are the studies in apprenticeship produced within the Commission of the European Community's social policy series. Additionally OECD has published a short, useful review titled *Policies for Apprenticeship* (1979) which provides some of the source material for the introduction. This review defines apprenticeship:

"For the individual - as a means of easing the transition from school to working life and introducing young people to adult roles and responsibilities in employment.

"For employers - as a source of manpower in the short term and longer term as a means of

providing its future skilled personnel and of adapting the skills of the personnel to change.

"For the economy - as a means of replenishing the skilled labour force - and as a means of providing alternative opportunities in education and employment for young people."

Such broad generalizations cover a wide variety of practices. The importance of apprenticeship differs considerably from country to country, both as a total percentage of an age group and in the range of trades covered. Additionally, vocational training and education take place outside apprenticeship schemes.

OECD suggests three patterns:

1. The English speaking model based on the UK with the craft trades unions identifying apprenticeship as part of collective bargaining;
2. Continental Europe with a more active role for central government, a wider range of apprentice occupations, more emphasis on compulsory instruction but also a larger quantum of general education and a smaller role for trades unions;
3. In Scandinavia, apprenticeship is on a smaller scale with more emphasis on other forms of vocational education.

The Scandinavian example, in this text, Denmark, is perhaps an exception in terms of relatively large numbers of apprentices, although it is rapidly developing an alternative educational and vocational strategy. This alternative strategy reflects an important trend. Although several European countries, West Germany included, retain apprenticeship as the major activity of school leavers - overall its future is uncertain. Governments increasingly wish to deploy resources on a comprehensive view of training needs rather than allow enterprises and unions to take a narrower view of economic performance and manpower needs.

The question arises of how to improve vocational preparation in general rather than extend, or even maintain, a particular aspect of it. Technological and organisational change have shifted the preferences of the younger age groups to full time vocational education. Equally economic and technological shifts, accompanied by high levels of youth unemployment, make it difficult to sustain a balance between employer and employee needs.

Some attempt is made to provide a broader base for apprenticeship; by defining wider occupational categories- by attempting to identify and group skill areas; by introducing training modules or by providing an additional year of schooling, e.g. Berufsgrundbildungsjahnr (a basic vocational training year in

Germany). There is also a trend towards reducing the apprenticeship period in order to make it more "attractive" to the young worker who wishes to earn a full wage.

A number of countries accept the principle of dual qualification whereby apprenticeship is equivalent to upper secondary education as an entry qualification to the next education sector, although the route tends to be vocational rather than purely academic.

In some countries (France, Belgium, Germany - for example) apprenticeship is an important and, indeed, necessary stage prior to technician or higher training. The integration of apprenticeship and higher training, however, is more difficult in the UK with, in particular, a resistance to adult apprenticeships, associated with the involvement of trades unions in apprenticeship administration.

Most countries have, by legislation or influence, 'related instruction', away from the enterprise. Apprenticeship training has been increasingly modified to correspond more closely with employee and longer term employment needs than with those of the immediate employer. Government intervention becomes a factor, particularly when there is conflict of interest among the participants. Such structural modifications are most frequently:

1. Delay in specialisation by introducing:

(a) Skill groups or clusters,

(b) Broad introductory year,

(c) Modular structures of training.

2. Standardised off the job training.

3. Reduction of the apprenticeship period.

4. Revision of syllabus and improved instructor training.

5. Government intervention for special purposes, e.g. for:

(a) Low academic achievers,

(b) Minority groups such as the handicapped,

(c) Women.

All this is part of a process whereby apprenticeship becomes less a separate system and more a part of a larger integrated national training programme. This includes specifics such as vocational education in public education institutions, non-apprenticeship training by employers, and government training programmes. More important is the way in which this integration is seen as part of the process of continuing or permanent education/training throughout a lifetime.

Co-ordination here becomes an important factor. In terms of financial control, collective financing is via selective or universal taxation, dependent on whether an employer trains himself or not. There are inspectorial systems to maintain standards. One important consideration is that if apprenticeship dies away, public sector vocational training would cost

more.

Co-ordination is also important in terms of the large number of bodies involved in the administration of apprenticeship. Central government may be involved through the Ministry of Education, of Labour, or both. Quasi-public bodies are established which operate at national or regional level. The diffuseness of the English model lends itself to some criticism, particularly as one third of the 16-19 age group has no contact with educational or training bodies.

The future of apprenticeships, from country to country, is not clear. What does seem significant is that its structure and contribution, both to manpower needs and individual development, is in the process of evaluation in major Western countries.

Six European countries have been selected for detailed illustration: Denmark, Eire, France, Netherlands, UK, and West Germany. Material from EEC documentation has been edited and reclassified under ten headings: definitions of apprenticeship, legislation, participating bodies, component parts of the apprenticeship programme, formal qualifications and examinations; guidance and supervisory services, reform and development take-up rates, examples of ranges of trades involved.

In most cases illustration is of all these countries; occasionally it has been relevant to concentrate on fewer.

VOCATIONAL TRAINING: SOME EUROPEAN COMMISSION VIEWS*

As with national ministries, the European Commission separates education and training into different directorates. Educational policy is a relatively new activity area for the Commission and operates within Directorate General 12 - Research, Science and Education. It has specific programmes concerned with:

(a) The education of the children of migrant workers.

(b) The teaching of foreign languages.

(c) Transition from education to working life.

(d) Mobility of educational administrators, particularly in higher education.

In addition, there is a sector at work on the mutual recognition of professional qualifications, i.e. doctors, surveyors, midwives, architects etc. The budget for these programmes is relatively small, i.e. about 11 million units of account - approximately £5 - £6 million.

Employment and vocational training have been, for a long time, more central to the Commission's economic activites. The Directorate responsible for social affairs has a budget of 600 million units of account of which a considerable proportion is directed towards employment and vocational training. Appendix 1 (page 39) outlines the general principles for the implementation of a common policy on vocational training - laid down in April 1963. The implementation of these principles (as is indicated in the Appendix notes) has been slow and difficult. As a member of the Commission pointed out, it is less difficult to establish legal norms for the transition among member countries of goods than for people - both in terms of education, training, and mobility. National systems are still very different. Consequently there is difficulty not only in matching training levels for possible mobility but even with pilot schemes for the exchange of young workers. However, it is important to note that national policies are increasingly framed in the context of international working groups. For example, the Manpower Services Commission receives considerable funds for its job creation programmes from the Community. In order to receive these funds its programme structures and constitution must fit in with Common Market guidelines. So that both in terms of discussion of common problems and the drawing of guidelines for subsidies, some rapprochement between and among countries is going on. From the UK perspective, rapprochement is possibly more likely between certain countries of the Market, such as Belgium and Holland or Holland and Germany where mobility across borders of workers is easier than "across channel" movement.

The dilemma with vocational training as perceived by the Commission's policy makers is a division of approach. At one

end of the spectrum there are those who think that training should be co-ordinated among the nine by mandatory measures. At the other end of the spectrum there are those who feel that harmonisation is impossible and one can only have a gradualist approach of exchange and experience, a piece by piece rapprochement. What is clear is that at some stage in the Market's history, hard bargaining is going to take place on standards and levels of qualification for employment. The issue is not only the difference in structure and level of training but also in the very rapid changing technology of the current period. This, of course, provides a possible opportunity (as with MSC) for a European attempt to group skill requirements.

Currently, the issue of training - long or short term - has become the victim of short and medium term concentration on employment issues - in all countries of the nine. Consequently the focus is on financial transfers among the EEC and member countries; thus job creation as a priority rather than specific issues of vocational training and guidance. There have been very few "think pieces" on fundamental questioning of social structure. The political pressures are the here and now. The difficulty, too, with studies of the impact of training on work is the tendency within the Commission and within government to ignore pilot studies and to exist in generalities at the policy level. This is a pity since it is becoming a Commission view that training does not merely reflect work needs and methods, but that the structure of training dramatically affects working conditions, i.e. initial training and education are pre-conditions of working structures rather than the reverse. Continued activity of this kind within the Commission is therefore perceived as critically important.

The problem then is that money spent out of the Social Fund tends to be in terms of rapid through-put of work preparation schemes, short term measures to alleviate unemployment. The qualitative elements of resource distribution are underestimated. There is a "plugging of the hole" in some countries which are seeking employment generation for short periods rather than looking at a structure for stable employment. However, it could be argued that the identification of skill areas to build up around a uniform training programme throughout Europe is something that could be identified.

As an instrument of policy the Commission has set up in Berlin a vocational training centre whose objectives are spelled out in Appendix 1 on page 39. Its aims are the promotion and development of vocational training and continuous training at Community level. The Centre has itself been influenced by the preoccupation with vocational preparation in the unemployment context. It is therefore geared overmuch to vocational preparation rather than to vocational training.

Apart from the issue of Community policy as a whole, it is possible to use Community comparative studies to make very simple points. For example, one interviewee pointed out that the German system of apprentices simply covers a wider area

of trades than the UK. In covering a wider area of trades, it covers a wider area of ability - thus not allowing the bottom 40 per cent of an age cohort to drop out. Social status and civic stability is enhanced by the chambermaid or baker's assistants having the proper apprenticeship training as opposed to putting them on the job creation carousel. A carousel goes round, picks up, and drops again.

* Source: 1978 interviews within Directorate General 5 - Division of Employment and Vocational Training and Directorate General 12 - Division of Education and Youth.

APPRENTICESHIP - COMPARISON AMONG DENMARK, EIRE, FRANCE, NETHERLANDS, UNITED KINGDOM, AND WEST GERMANY
under the headings of:

1.	DEFINITIONS OF APPRENTICESHIP	10
2.	LEGISLATION	11
3.	PARTICIPATING BODIES	13
4.	COMPONENT PARTS OF THE APPRENTICESHIP PROGRAMME: EDUCATION, TRAINING, WORK EXPERIENCE	16
5.	STARTING AGE AND DURATION OF APPRENTICESHIP	18
6.	FORMAL QUALIFICATIONS AND EXAMINATIONS	19
7.	GUIDANCE AND SUPERVISORY SERVICES	22
8.	REFORM AND DEVELOPMENT	24
9.	TAKE-UP RATES	26
10.	EXAMPLES OF RANGES OF TRADES INVOLVED	32

Source material: Commission of the European Communities Social Policy Series on Apprenticeship

DEFINITIONS OF APPRENTICESHIP

Eire

Apprenticeship is a special employment relationship which binds the employer to give or cause others to give the apprentice in his employment such instruction in the undertaking as will enable him to acquire technical proficiency which he must have in order to become a skilled worker while using the service of the apprentice in the undertaking.

Netherlands

In the apprenticeship system the apprentice receives, on the basis of a mutually agreed apprenticeship contract, both practical training for a particular occupation and general education orientated towards that particular vocation.

LEGISLATION

Denmark

The law on apprenticeships of the 2nd October, 1956 lays down regulations on the conclusion and content of indentures; on the mutual obligations of the parties; on apprenticeship training in the trades, industry, etc.; on apprenticeship training in retail commerce and office routine; on termination of the apprenticeship; on supervision penalty clauses, etc.

Eire

The Industrial Training Act of 1967 provides for better provision for industrial and commercial training and establishes a body for promoting and providing training at all levels in industry and commerce: training within industry; training centres and instructor training; apprenticeship training.

France

Article 11 of the law of the 16th July, 1971 provides that indentures are a special type of employment contract placing the employer under the obligation, not only to pay a wage on the terms laid down in the law, but also to ensure that methodical and comprehensive training is given, partly in the firm and partly in an apprenticeship training centre, for a young worker who undertakes, in return, to work for that employer for the term of the indentures.

Netherlands

The Apprenticeship Law of the 31st July, 1968 lays down certain rules defining the tasks and procedures of legal entities specified as national and regional bodies and formed by representatives of employers and employee organisations in the relevant economic sector, supplemented in accordance with the provisions of the law by representatives of the organised vocational training system comprising school governing bodies together with headmasters and teaching staff in vocational schools and by the pupils' parents.

United Kingdom

There is no mandatory framework specifically relating to apprenticeship; neither is there any legislation which makes it obligatory for an employer to provide systematic training or associated vocational education for young entrants for skilled industrial or commercial occupations.

West Germany

The 1969 Vocational Training Act standardises existing statutory provisions for all Länder. It applies to training for industry, agriculture, the civil service, the professions and home training. According to the Act, young people up to 18 years must be trained in one of 460 legalised training occupations. These form the basis of 40,000 types of job.

PARTICIPATING BODIES

Denmark

The administration of apprenticeship training is the responsibility of two Directorates under the Ministry of Education: the Youth Education Directorate and the Vocational Training Directorate. The Vocational Training Directorate administers all forms of apprentice training except agricultural training and concerns itself with the legislative regulations concerning the approval and supervision of colleges, approval of budgets, allocation of operational subsidies, approval of building work, purchase of fittings and teaching equipment and allocations of money. The Ministry's Vocational Training Directorate co-operates with employers and employees through joint trade boards which report through a national apprenticeship board (and committees) for the final examination of apprentices. These trade boards make proposals and from these proposals the Vocational Training Directorate issues curricula which include regulations for apprentice training at college, as well as instructional guides for the context of on-the-job training. The Vocational Training Directorate aims to co-ordinate practical and theoretical training. The joint trade boards themselves have representatives of employees chosen from the trades. The Minister of Education and the Minister of Labour together determine the vocational area that is to be considered as forming a trade when setting up the joint trade boards. These boards submit recommendations to the national apprenticeship board on detailed rules for training. They work out optimal training conditions, lay down minimum and maximum training periods and appoint inspecting masters. There are 36 trade boards which are enumerated in a later section. The national apprenticeship board covers the entire apprenticeship field with a chairman appointed by the Minister of Education; employer and employee representatives from the crafts and industries in general and also from the retail commercial and clerical trades. The Apprenticeship Board advises the Ministry in matters submitted for its opinion. It must work to the objectives set out in the Apprenticeship Act. The Apprenticeship Board takes final decisions in matters relating to departure from the training period established for the trade.

Eire

In Ireland the 1967 Apprenticeship Act set up a body to make better provision for industrial and commercial training and raise levies. The organisation is directed by a council made up of representatives from employers' organisations, trades unions, the education sector and the Minister for Labour. The council is appointed by the Minister for Labour. It makes industrial training policy under three main headings: (1) training within industry; (2) training centres and instructor training; (3) apprenticeship training. It has a network of industrial training committees which advises it in relation to textiles, clothing and footwear, food and drink and tobacco, engineering, construction, printing and paper, chemical and allied products. Training is carried out within firms and through day and block

release courses provided by the Vocational Education Committee. The Vocational Education Committee controls certified courses of instruction in vocational schools and technical colleges for at least one per week of the academic year of thirty-six weeks during the first three years of the apprenticeship. It is mandatory for apprentices to attend these certified courses and employers are obliged to release apprentices without loss of pay.

France

Under the 1971 Law control of apprenticeship training schemes is based on two principles: (1) general control is the responsibility of a departmental or regional committee; (2) inspections are carried out by an apprenticeship inspection service. National councils and regional committees have powers over firms and apprenticeship training centres. An Apprenticeship Training Centre is a broad term covering both public and private vocational training courses. Basically, it is either a private or public sector college which conforms to regulations laid down by central government and to which a particular industry or industries wish to send students for the theoretical and general part of their off-the-job training. Most employers above a certain category are subject to an apprenticeship tax based upon 0.5 per cent of total gross wages. This tax is either paid directly to the Treasury or by financing directly on apprenticeship training centre of a firm's own choice.

Netherlands

In the Netherlands national bodies are responsible, in particular, for preparing practical programmes and examinations, acting as intermediaries in the drawing up of apprenticeship contracts, and ensuring compliance with them. National bodies have representatives of employers' and employees' organisations from the relevant sector and representatives of an expert kind from the Foundation for Schools and Establishments of Vocational Training. There is also representation from pupils' parents. The difficulty with the national bodies is that more than one national body needs to co-operate in the training of certain apprentices such as metal turners, milling machine setter operators, carpenters, floor coverers etc., so the regulation is applied flexibly.

United Kingdom

Apprenticeships are administered by national joint apprenticeship bodies set up by the representative employers' associations and trades unions, usually on an industry rather than on an occupation basis so that there is overlap between the schemes for some crafts. The Industrial Training Act of 1964 which produced the Industrial Training Boards has implied more sophisticated training, although the recommendations of the ITBs exist within the conceptual framework of the joint boards. Further education or vocational education for apprentices is usually provided in colleges of further education administered by the local education authorities on syllabuses devised by the

City and Guilds of London Institute. What is required is co-ordination between apprenticeship schemes - ITBs' recommendations for on and off-the-job training and educational provision syllabuses proved by the external examining bodies, i.e. the City and Guilds or the Regional Examining Bodies.

West Germany

Federal Government acts to standardise training in industry and in fact the Department of Education is responsible for training taking place in industry throughout the Federation. Apart from training provided by individual employers, there are vocational training centres run by employers' associations, chambers of trade and commerce which provide the training elements required by regulations not adequately met by individual employers. Individually the 11 Lände Governments are responsible for what goes on in schools, but the general curricula for vocational training in schools are developed co-operatively between the Federal Government and the Lände through the agency of the KMK which collectively represents the Lände Governments in negotiation with the Central Government. The Federal Government is advised by a central curriculum review unit and each Lände Government usually has such an advisory curriculum unit of its own. The supervision of programmes, examining and administration is carried out by the chambers of commerce and of trade. Currently 73 chambers of industry and commerce supervise 634,000 occupational training contracts of 132,000 employers and 43 chambers of trade supervise 505,000 contracts and 170,000 small businesses. Germany has the highest take-up-rate of apprenticeship places and possibly the most detailed regulatory system.

COMPONENT PARTS OF THE APPRENTICESHIP PROGRAMME:
EDUCATION, TRAINING, WORK EXPERIENCE

Denmark

The vocational training directorate of the Ministry of Education administers the legislative regulations and issues curricula which include regulations for apprentice training at colleges. These curricula give the range of the instruction, contents and time schedule, lists of syllabuses, equipment and teaching ages, and number of students per class or group. The vocational training directorate also issues instructional guides. Approvals are provided for practical training at the place of work, giving directions on the content and extent of this training, including references to materials, tools and machinery employed in the profession and the products manufactured. There is also an attempt to co-ordinate practical and theoretical training. Practical training is carried out at the place of work and theoretical education at a college. Curricula for the instruction of technical colleges contain regulations on the extent, content and timing of the instruction. Instruction will normally have a marked emphasis on the trade concerned and it will include subjects such as materials technology, tool technology, workshop technology, the interpretation of drawings, technical drawing. Business economics will often be included. Alongside this theoretical instruction, instruction at technical colleges is already provided in workshops and laboratories and it is attempted to provide this practical training in as close an assocation as possible with practical training at the place of work.

Eire

Although there is no compulsory testing at the moment, examination syllabuses are set by the Department of Education. Recommendations for a new system argue for a comprehensive training and educational curricula with built-in testing procedures under the control of the representative Curriculum Advisory Committee. Recommendations exist for at least one day a week during the first three years of apprenticeship to attend courses in vocational schools or technical college covering practical training, theoretical and related and general education as agreed between employer, trade union, education and training interests. The objective of off-the-job training to be: induction to the work environment; learning of and development of craft skills; learning of essential craft knowledge; development of industrial discipline; some stamina and speed development; an agreed input of related education.

France

Although the duration of apprenticeship is usually two years, it is possible for students to undertake a full-time training course at a technical college gaining a technical certificate for one year and then have a one year contract. Generally, however, the Reform Law of 1971 argues that general and technical

education become the responsibility of special apprentice training centres which hold the monopoly for education in order to standardise apprentice training schemes and simplify their organisation. Consequently, relationship between training and vocational education and training off-the-job can be through one of several routes: either full-time certification at technical school or college which enables direct entry into employment or via the newly set up apprenticeship training centres with direct relationship with employers.

Netherlands

On the inter-relationship between practical and theoretical instruction - the apprentice receives four days training from his employer and on one day a week attends a school for general vocationally orientated education. There is an attempt to draw up a single overall programme for the separate training schemes in the apprentices' system comprising the practical training programme and the programme for general and vocationally orientated education. In practice, working groups of experts from education and industry are usually formed to draw up these overall programmes. These are drawn up on the basis of occupational analyses. The responsibility for apprentices training in the firm rests with the supervisor employer who is required by law to train the apprentice in accordance with the practical programme and the practice of the occupation, trade or craft specified in the apprenticeship contract.

United Kingdon

The majority of joint boards provide guidance to employers on the scope of the training and experience that the apprentices should be given (or ITBs). All schemes require that apprentices attend part-time day or block release classes of associated vocational education in working hours without loss of pay. In some cases, additional attendance one or two evenings per week is required.

West Germany

The training component for each individual is to an agreed written training contract between the employer and trainee on a standard national form. The subject matter and length of training is laid down by the Federal Government in the vocational training regulations. There is a national agreement (1972) for regulations for on-the-job training. The general curriculum for vocational training in schools is developed co-operatively between the Federal Government and the LMnde Governments.

STARTING AGE AND DURATION OF APPRENTICESHIP

Denmark

Starting age cannot be less than 16 which is school leaving age. The duration of the apprenticeship is set out in the indentures and the joint trade boards decide minimum and maximum training periods which should not exceed four years in any trade. The training period may, however, be permitted by the Minister to go for one further year than before. Examples: carpenters - three to three and a half years; hairdressers - three years; bricklayers - four years; motor mechanics - three and a half to four years.

Eire

Normally beginning at 15-16; duration five years. Recommendation at present for four years apprenticeship or three years with holders of a School Leaving Certificate.

France

Normal starting age 16 but occasionally 15 if three years of compulsory secondary schooling have been attained. Duration - usually for two years, occasionally for three. A one year contract is possible for people who have attended a full-time training course at a technical college with the appropriate certificate.

Netherlands

Minimum age 16: post-school. Basic training two years, further training at least one year. Problems are now occurring with 16 year olds who must attend at least one day in vocational training and one in general education which leaves only three days for practical training. Apprenticeship contract ends when the apprentices have taken the examinations or have reached the age of 27, occasionally an apprentice may be allowed to go beyond the age of 27 to enable him to complete his training.

United Kingdom

Normal entry 16 - usually requiring completion by 20 or 21. Discretionary provision for entrants one or two years older than the norm. Duration normally four years, i.e. engineering, shipbuilding, etc. Three years in (for example) building crafts, hairdressing and agriculture (untypically five years, small number also two years).

West Germany

School leaving age 15. Training contracts usually for three years, although there are some of two and some of three and a half years. An individual's training period may be shorter or longer than the norm, according to particular circumstances.

FORMAL QUALIFICATIONS AND EXAMINATIONS

Denmark

Final apprenticeship examinations are organised by the apprenticeship examination committees which are established within each trade in geographically demarcated areas. The committees consist of an even number of vocationally trained members, half of whom must be employers' representatives and half employees' representatives. The members are chosen by the main associations of the trade concerned. The final apprenticeship examinations are assessed by inspecting Masters who are appointed by the trade board. Employers and employees are equally represented. Detailed rules for the final apprenticeship examination committees and for the final apprenticeship examination (including rules concerning the necessary requirements) are established by the Minister of Education following recommendations from the relevant trade board and the apprenticeship board. Apprenticeship tests often involve one or more pieces of work. If the apprentice passes he receives a certificate (apprenticeship certificate), prepared in accordance with rules laid down by the Minister of Education. If the apprenticeship concludes with a different test (approved by the trade) he will receive a certificate that he has passed this test. Apprentices who need not take an apprenticeship test because they have passed an equivalent or more advanced test, receive from their Master a certificate of completed apprenticeship setting out the apprentices' period of training and whether he has achieved proficiency within his trade.

Eire

Traditionally no compulsory testing or certification. Voluntary trade examinations. The new Apprenticeship Act will involve compulsory testing and certification for all apprentices with built-in testing procedures under the control of representatives curriculum advisory committees.

France

Prior to 1971 apprenticeship training courses led to two formal qualifications: the Final Apprenticeship Examination taken at the end of the practical training and the CAP Award on the basis of general and technical training received. Since 1971 the apprentice training scheme leads to Technical Education Diploma. Depending on the level of education reached and the branch of economic activity to which the apprentice belongs, at the end of his training he may attain the Vocational Studies Diploma (BEP), the Vocational Training Certificate (CAP), or the Agricultural Apprenticeship Diploma (BAAA). The Diploma is not intended to fix a person's abilities as at the date of the issue of the Diploma. An apprenticeship is only the first stage in a programme of further vocational training. The Final Apprenticeship Examination is being retained in the craft sector, where an examination is held every year comprising theoretical, practical and oral tests. Boards of examiners are appointed

every year by the President of the Chamber of Trade consisting of a general board (and a specialised board for each trade) responsible for practical organisation of sessions and for preparation, supervision and marking of tests. The CAP is gradually becoming the standard Final Apprenticeship Examination and the Chambers of Trade are sorry that the Final Apprenticeship Examination in the craft sector is not equivalent to a Technical Education Diploma. Even if it is de facto it is not de jure as it does not provide access to employment in the Civil Service.

Netherlands

The apprenticeship law lays down that at the end of the practical training the national body should give apprentices the opportunity to take an examination. Those persons who have regularly attended classes of general and vocationally orientated education may be allowed to enter for the examination. The examination should comprise assessment of the apprentices' understanding and skills on the basis of and taking into account the practical programme and the part of the syllabus containing the vocationally orientated programme. Apprentices are thus not examined on the general part of the syllabus. The examination should be set by an examination board to be appointed by the Minister on the proposal of the national body. Apprentices who pass the examination receive the apprenticeship diploma. Those who pass only the practical part of the examination may receive a certificate of practical proficiency.

United Kingdom

Except in a small number of atypical schemes, apprenticeship in the UK does not provide for a final examination or test or certificate of competence. The apprentice who serves his time is accepted as a craftsman by his employer (although he need not continue to employ him) and his trade union. All vocational education schemes related to craft apprenticeship lead to a final examination and at the level of the competent craftsman. These are set by educational bodies such as the City and Guilds of London Institute. Although success in these examinations adds to the status and prospects of the apprentice, and in a few cases may lead to an early completion of training or a supplement to wages, they do not usually have any bearing on the apprentice's graduation to craftsman status on completion of the appropriate period of time. Similarly, an apprentice may proceed to a systematic training programme on lines recommended by an ITB with phased tests of competence at various stages and possibly gain a certificate of craftsmanship awarded by the ITB. Whether he does so successfully or not, he will still be able to claim craftsman status when he has served as an apprentice for the specified period of time. This status is denoted by an endorsement of the apprentice's indentures by the employer and in some cases by a representative of the body administering the scheme.

West Germany

At the [illegible] training, trainees take the final examinations administered by the chambers of commerce except in certain Lände where for agriculture they are administered by the Ministry of Food and Agriculture. The examination is both written and oral. For technical occupations it includes test work pieces or samples of work made under supervision. A pass must be achieved in all areas but each examination may be repeated. There is at least one intermediate examination. The examination board must have at least three members. Employers' associations and teachers are represented in equal numbers and there must also be at least one vocational school teacher on it. Successful completion of vocational training is necessary for employment of the standard wage and for qualifications as at "Master" after several years experience and success in another examination.

GUIDANCE AND SUPERVISORY SERVICES

Denmark

The Law on Vocational Guidance of May 1961 sets out rules for the assistance to be given in the preparation and implementation of the choice of training or trade. It is aimed largely at young people faced with the choice of training or trade after leaving municipal public school. Vocational guidance falls under the Minister of Labour and is administered by vocational guidance officers. These officers give individual guidance and provide general information on training and vocational conditions. Guidance and information are free of charge. Each vocational guidance office keeps an index of existing training schemes and choice of occupations. It is usual for one or more public school teachers to have completed a course on vocational and instructional guidance.

Eire

In Ireland the Council for the Promotion of Industrial and Commercial Training has decided to operate, through its training and advisory service, a monitoring system for the on-the-job period based on a combination of visits to firms, a pre-paid postcard system, an improved apprenticeship centre log book, short courses in apprenticeship supervision for craftsmen, supervisors, and trade union employer assistants.

France

Since 1971 vocational guidance has been compulsory for anyone wishing to start an apprenticeship. There is a National Council for Vocational Training, Social Advancement and Employment. From it stems, at regional level, vocational guidance inspectorates and regional offices with 250 public centres for vocational guidance. Staff consists of a director, one or more vocational guidance consellors, a welfare officer and a doctor. The centres are subject to control by the Regional State Education Inspectorate. Chambers of trade may set out their own vocational guidance centres. No child under 17 may be employed in certain firms unless he has a Vocational Guidance Certificate issued by the General Vocational Guidance Inspector.

Netherlands

In the Netherlands national counsellors are appointed on a ratio of one counsellor to every 175 apprentices. These are appointed to the national bodies under the approval of the Ministry of Education. A counsellor is an intermediary between the body on one hand, the apprentice and the firm he works for on the other. He keeps in touch with the employers and the employees' organisations and with the regional and other schools within his area. He makes frequent contacts with the apprentices at their place of work. He is kept informed of the practical possibilities and difficulties involved in the training. He can then pass these on to the national body which, on the basis of the infor-

mation gained, can adjust its policy accordingly. In general the counsellors are recruited from skilled craftsmen and executive staff with wide experience of industry who also possess teaching ability as well as organisational and administrative capacities.

West Germany

At the place of training the responsible authorities - usually chambers of industry, commerce, agriculture and the professions - determine whether an employer is qualified according to the regulations of 1969 to give training. These regulations cover posts available, equipment, the number of trainees and the training of personnel. Instructors must have completed their own training, be at least 24 years old, and be able to demonstrate knowledge of the occupation in question and of training methodology.

REFORM AND DEVELOPMENT

In most of the countries identified major reforms in the apprenticeship system and in vocational training in general are underway, together with increasing central government intervention in the structures of training. The German concept of equivalence has already been mentioned, i.e. the possibility of using the training route to give equivalence in promotion and status opportunities equally with academic and general education. Two countries, Denmark and Netherlands, illustrate the underlying social and technological problems requiring reform.

Denmark

Today's rapid progress in technology, the resulting rapid changes in production methods and living conditions, co-operation to secure the most efficient utilisation of resources and labour, and the demand for improved education from all groups of people demand reform of vocational training. One result of dynamic technology and changing production and living conditions must be that training should include such elements of general education and all-round information that a skilled worker is no longer earmarked for the same trade for the rest of his life but will be able to meet the demands of a large group of trades. Training and education will not stop at the age of 20 but will be necessary or desired for the whole of one's life. The Danish experiment in basic vocational training embraces some of these new aspects of apprenticeship training. A basic year provides the apprentice with a form of general education and information that will break down some of the old barriers between intellectual education and vocational training. He will be given a broad orientation over a large vocational field, making it easier for him to change jobs and to adapt his qualifications to changes in production. The new vocational training system will serve two objectives: it will provide better training for work within the trades and it will contribute to the democratic ideal that there must be opportunities for all.

Netherlands

The Minister of Education states that the national bodies should be made primarily responsible for guaranteeing the functional role of vocational training with a view to the possibility of practising the occupation in this country and abroad. For purposes of defining this responsibility, career profiles on the basis of job analyses play a major role. Closely connected with this basis, programmes must be designed to find the minimum requirements for practising an occupation in accordance with national and international standards defined in terms of practicable training goals. Development of the apprenticeship system is seen against the background of the government's intention to reorganise the entire educational system in the Netherlands. A start has been made by what has been termed participatory education. This stems from the observation that disparity has arisen between the vision and the reality concerning the extent to which employment conditions are in line with the

developments in training and education. A new type of education is being developed primarily for the present generation of young workers. The characteristic features of this type of education is that the personal and social situation of the participant is chosen as the starting point for the organisational institution of the educational process. This new form of education will result from gradually combining existing and general courses for apprenticeship.

TAKE-UP RATES

Activities of young people on leaving compulsory school

Proportion of school leavers in each activity

COUNTRY	YEAR	FULL-TIME GENERAL EDUCATION	VOCATIONAL EDUCATION	APPRENTICESHIP	WORK OR UNEMPLOYMENT	OTHERS AND UNKNOWN	Percentages TOTAL
Denmark [c]	1973	65.0	3.0	15.0	15.0	2.0	100
Eire [c]	1975	26.0		10.0	59.0	5.0	100
France [b]	1975	33.3	31.2	12.5	23.0		100
Netherlands [b]	1968/69	75.0		3.0	18.0	4.0	100
United Kingdom [b]	1974	20.8		17.8	51.1	10.4	100
West Germany [a]	1976	47.8		46.2	2.7	3.3	100

NOTES: a) Plans of school leavers aged 15-19 (mostly 15-16). Includes Gymnasia leavers of which there were 133,314 out of a total of 888,949 leavers.
b) Age 15-16 or completion of compulsory school.
c) Age 16, completion of school beyond compulsory.
d) Plans of seniors in high school, mostly 17-18 years old.

SOURCE: Policies for Apprenticeship OECD, 1979.

Denmark

Since 1965 the number of indentures entered into has been decreasing - not only because of lower birth rates.

Indentures entered into (Section 1 apprentices)			
Year	Crafts and industry	Commerce and clerical	Total
1964	19,395	14,784	34,179
1965	18,223	13,573	31,796
1966	16,679	12,148	28,827
1967	14,727	10,559	25,286
1968	13,434	9,772	23,206
1969	13,606	8,256	21,862
1970	13,491	7,378	20,869
1971	11,711	5,742	17,453
1972	10,399	5,291	15,690
1973	10,227	4,280	14,507

(1973 is the last year of corrected statistics.)

France

In 1966-68 one-third of the young people in each age group started their working life with no training other than their compulsory schooling behind them. During the same period a considerable decrease in the number of apprentices was recorded: between 1967 and 1971 the figure fell from 138,000 to 124,000 in the non-craft sector, from 201,000 to 150,000 in the craft sector and from 91,000 to 46,000 in agriculture.

Netherlands

In the Netherlands, as elsewhere, unemployment in recent years has assumed serious proportions. The national bodies are being confronted to an increasing extent with apprentices who, owing to loss of their jobs, have had to discontinue their training or have been unable to start it. Their annual total figures show a considerable decline in the number of apprentices in the major technical centres such as the building metal industries. In some smaller sectors, such as plumbing and central heating firms, an initial rise is now being followed by a fall. The same trend appears in the electrical industry, although it has tended to level out in recent years. Only in the services sector (catering, nursing, hairdressing, etc.) has there been a particularly marked increase. The number of apprentices in the administrative occupations and in the retail trade also shows a marked increase but this is due to the fact that apprenticeship in these areas has only recently been introduced and therefore increase is thus in response to the backlog.

Netherlands (Cont.)

Number of apprentices under training with national training bodies

No.	Trade	1967	1968	1969	1970	1971	1972	1973	1974
1.	Typography	2706	2409	2121	2766	2818	2538	2226	1866
2.	Bookbinding	486	467	322	291	261	281		
3.	Lithography	436	474	548					
4.	Building & Construction	11477	11367	11[illegible]22	10735	9874	9218	8905	7395
5.	Painting & Decorating	4169	4224	4025	3850	3612	3422	3232	2872
6.	Plastering	220	150	146	147	166	189	198	184
7.	Woodworking	3671	3681	3426	3296	3201	3182	3054	2716
8.	Roadbuilding	876	828	903	950	968	1021	1044	932
9.	Automobile industry	5340	6135	6548	6699	6612	7013	6729	5906
10.	Bicycle industry	284	266	222	212	208	205		
11.	Plumbing, gas & water fitters etc.	2051	2163	2119	2032	2207	2444	2454	2126
12.	Metal & electrical ind.	9525	9716	9789	10665	10461	9091	8449	8636
13.	Smecoma (smiths, construction & machine workers)	4244	4085	4088	4159	3965	3533	3485	3229
14.	Electr. Engineering	4687	4688	4947	5677	6262	6547	6723	6641
15.	Opticians	178	185	199	276	303	301	324	307
16.	Bakery & Confectionery	2168	2129	1976	1785	1727	1549	1428	1266
17.	Pastrycooks	1686	1696	1567	1399	1212	1185	1122	1082
18.	Butchers	1714	1945	1933	1783	1616	1821	1948	2083
19.	Shoe industry	215	166	110	100	24	55	39	46
20.	Shoemaking	87	58	39	35	34	36	36	33
21.	Tailoring	124	113	76	61	32	29	40	30
22.	Catering industry	1627	1795	1904	2066	1913	2189	2486	2750
23.	Nursing & care	1000	1053	964	926	1418	1633	1666	1633
24.	Shipping	401	444	459	432	479	525	481	487
25.	Central heating	1616	1618	2040	2667	3010	3085	3095	2436
26.	Textile industry	619	488	380	360	186	146	97	138
27.	Ready-made clothing	1479	1385	1386	1309	469	793	983	941
28.	Coachwork	714	706	730	783	868	817	750	608
29.	Processing industry	558	555	598	632	619	609	667	779
30.	Dock work	431	427	415	370	504	530	543	541
31.	Hairdressing	1278	2205	2943	3973	4237	4988	5122	5393
32.	Econ. admin.(clerical)						374	1104	2014
33.	Retail trade						371	1103	1629
34.	Agriculture							1613	1719
35.	Food industry							623	626
36.	Forestry							82	68
		66077	67622	68245	70436	69266	69720	71851	69112

United Kingdom

In 1974, of the school leavers under 18, there were 274,800 boys - of whom 118,200 or 43 per cent were apprentices; of the 237,800 girls, 25,500 - or seven per cent - were apprentices. Assuming an average apprenticeship duration of four years, there were probably about half a million apprentices in Great Britain in 1974-75. Apart from the year of the raising of the school leaving age, numbers entering apprenticeships as first employment have fluctuated between 112,000 and 133,700 since 1969.

At this point there can be seen no marked fluctuations except in the level of economic activity. Nearly two-thirds of male entrants to apprenticeship are in engineering or allied trades, construction, motor vehicle servicing, print and allied trades. Of the girls, more than two-thirds of apprentices are in hairdressing. There are relatively few apprenticeships for either boys or girls in clerical, commercial, distribution, financial or catering occupations. There are no collated statistics of apprenticeship or comparable contractural arrangements entered into by school leavers who are over 18 years of age.

West Germany

Currently 73 chambers of industry and of commerce supervise 634,000 occupational training contracts of 132,000 employers and 43 chambers of trade supervise 505,000 contracts and 170,000 small businesses. Some representative German figures are attached at the end of this section. (See next page).

West Germany (Cont.)

Apprentices from most important training sectors					
Year	Industry Commerce Services	Craft	Agriculture	Public Services	Others
1	2	3	4	5	6
Basic figures					
1962	725 002	404 778	32 801		60 486
1963	742 985	430 840	33 418		64 799
1964	741 492	452 845	35 168		66 115
1965	748 863	468 039	37 277		77 769
1966	776 616	467 358	38 490		89 045
1967	779 513	481 469	46 123		95 360
1968	769 554	478 584	49 805		94 292
1969	714 625	435 006	45 866		87 957
1970	723 415	420 936	38 133	22 765	64 871
1971	728 397	406 629	29 929	24 320	83 803
1972	721 654	434 130	27 786	31 076	88 105
1973	694 068	464 996	25 651	49 659	96 427
Indices					
1962	100	100	100	100	
1963	102.5	106.4	101.9	107.1	
1964	102.3	111.9	107.2	109.7	
1965	103.3	115.6	113.6	128.6	
1966	107.1	115.5	117.3	146.5	
1967	107.5	118.9	140.6	157.6	
1968	106.1	118.2	151.8	156.1	
1969	98.6	107.5	139.8	145.4	
1970	99.9	103.9	116.3	144.9	
1971	100.5	100.4	91.2	178.7	
1972	99.5	107.2	89.4	197.0	
1973	95.7	114.9	78.2	241.5	

NOTES

1. Until 1969 public sector apprentices appeared under "others".
2. The tables show fairly constant figures. This also applies to the period 1973-78, although the number of apprenticeships available has diminished. One might conclude that in previous years a large number of apprenticeships were not taken up, particularly in less attractive areas. Currently (1974-81) there is more difficulty in getting an apprenticeship because of the large size of the age group.

EXAMPLES OF RANGES OF TRADES INVOLVED

In this context, West Germany is probably the most significant with 460 legalised training occupations, giving a range and depth that mops up a significant percentage of the otherwise untrained population. Examples are given of Irish, French and German categories. The Danish category is supplemented with brief descriptions of the duration and content of course.

Denmark

There are 36 Trade Boards:

Joint Board for master glaziers and the glaziers' trade.
Joint Board for the painting and decorating trade.
Joint Board for the bricklayers' trade.
Joint Board for the carpenters' trade.
Joint Board for joinery and associated trades.
Joint Board for the woodcutting machinists' trade.
Joint Board for the coopers', basket makers' and brush-makers' trade.
Joint Board for the boot and shoe trade.
Joint Board for the tailoring trade.
Joint Board for the printing trade.
Joint Board for the bookbinding trade.
Joint Board for the lithography and photo-engraving trades.
Joint Board for the ceramic trades.
Joint Board for the stonemasons', paviours and stucco-workers' trade.
Joint Board for the tanners' and fur-dressers' trades.
Joint Board for the bakers', confectioners', millers' and sugar-goods trades.
Joint Board for the tobacco trade.
Joint Board for the butchers' trade.
Joint Board for the dyers', trimming makers' sailmakers' and rope makers' trades.
Joint Board for the saddlers', paperhangers', travel goods and glovemakers' trades.
Joint Board for the hairdressing trade.
Joint Board for the dental mechanics' trade.
Joint Board for the chimney-sweeps' trade.
Joint Board for the watchmakers' trade.
Board for Apprentices in the metal industry.
Joint Board for the plumbers', pipe-fitters' and sanitary trades.
Joint Board for the hotel and restaurant trade.
Joint Board for Apprentices in the retail trades.
Joint Board for office apprentices.
Joint Board for commercial apprentices.
Joint Board for the horticultural trade.
Joint Board for the photographers' trade.
Joint Board for the furriers' trade.
Joint Board for the coach-builders' trade.
Joint Board for the specialist opticians' trade.

Each of these Trade Boards covers several tasks or industries.

Some examples are given below of the duration of the apprenticeship and its distribution between practical training at the place of work and instruction at a college:

Carpenters:

Apprenticeship: three - three and one half years. Instruction of four periods at a technical college, totalling 30 weeks or 1200 hours. Preliminary school: 12 weeks. Remaining period: three x six weeks. Most important subjects: technical drawing and other drawing techniques, materials technology, shuttering theory, vocational arithmetic, safety at work.

Joiners:

Apprenticeship: three years. Instruction for three periods at a technical college, totalling 23 weeks or 920 hours. Preliminary school: 11 weeks. Remaining period two x six weeks. Most important subjects: technical drawing and free-hand drawing, jointing, materials technology, tools technology, measuring, vocational arithmetic.

Hairdressers:

Apprenticeship: three years. Instruction of four periods at a technical college, totalling 40 weeks or 1600 hours, of which 375 hours are theory and 1224 hours practical training. Preliminary school: 16 weeks. Remaining period: three x eight weeks. Instruction includes the subjects: ladies hairdressing with waving as the most important subject, or gentlemen's hairdressing with cutting as the most important subject, and wig work.

Bricklayers:

Apprenticeship: four years. Instruction of four periods at a technical college, totalling 27 weeks or 1080 hours. Preliminary school: 12 weeks. Remaining period: three x five weeks. Most important subjects: drawing and drawing technique, interpretation of drawings, materials technology, vocational arithmetic.

Electricians:

Apprenticeship: four years. Instruction of six periods at a technical college, totalling 39 weeks or 1560 hours. Preliminary school: 12 weeks. Remaining period: four x six weeks and a final three weeks at college. Most important subjects: trade theory, including electricity, automation, materials technology, arithmetic, mathematics and physics.

Radio engineers:

Apprenticeship: four years. Instruction of six periods at a technical college, totalling 39 weeks or 1560 hours. Preliminary school: 12 weeks. Remaining period four x six weeks and a final three weeks at college. Most important subjects: trade theory and materials technology, vocational arithmetic and mathematics, diagrams and technical German and English.

Motor mechanics:

Apprenticeship: three and one half - four years. Instruction for six periods at a technical college, totalling 37 weeks or 1480 hours. Preliminary school: 11 weeks (at the special preliminary school for apprentices to the motor mechanics' trade). Remaining period: four x six weeks and a final refresher course of two weeks. Most important subjects: interpretation of drawings and work descriptions, workshop technology, business operations, engine theory and mathematics.

Fitters:

Apprenticeship: four years. Instruction of four periods at a technical college, totalling 29 weeks or 1160 hours. Preliminary school: 11 weeks at the preliminary school for fitters and mechanics. Remaining period: three x six weeks. Most important subjects: interpretation of drawings, workshop technique, materials technology, vocational arithmetic and physics. Within the fitters' and bricklayers' trade, apprentice training schemes have been initiated that will lead to training similar to the basic vocational training schemes (BVT).

Training programmes in the retail, commercial and clerical trades

Practical training at the place of work consists of participation in the various forms of work in a shop or office, including serving customers, product knowledge, stocks, filing, statements of turnover, daily, monthly and annual stocktaking, introduction to relationships with public authorities, customs duties, VAT, turnover tax, etc.

The apprenticeship period is two and one half - three years, including theoretical instruction at a college.

Eire

List of Occupations in Trades designated by AnCO

FURNITURE TRADE

Woodfinisher
Cabinetmaker
Woodmachinist
Upholsterer

PRINTING TRADE

Compositor
Letterpress Printer
Lithographic Printer & Platemaker
Bookbinder/Ruler/Cutter
Process Engraver
Stereotyper and Electrotyper
Photolithography Craftsman
Photogravure Craftsman

ENGINEERING TRADE

Fitter
Turner
Toolmaker
Brassfinisher
Sheet Metal Worker
Coppersmith
Metal Fabricator (includes Boiler Maker; Construction Fitter; Plater; Shipbuilder and Blacksmith
Welder
Patternmaker
Foundry Craftsman (includes Moulder and Coremaker)
Refrigeration Craftsman
Aircraft Mechanic
Instrument Mechanic

TRADE OF ELECTRICIAN

Electrician (includes Installations Electrician; Industrial Maintenance Electrician; E.S.B. Electrician; Rewinding Electrician; Neon Sign Electrician; Lift Electrician)

CONSTRUCTION TRADE

Carpenter/joiner
Slater and Rooftiler
Brick and Stonelayer
Glazier
Painter and Decorator
Plasterer
Stonecutter
Plumber

TRADE OF MOTOR MECHANIC

Motor Mechanic

TRADE OF DENTAL CRAFTSMAN

Dental Mechanic

France

Principal trades for which apprenticeships are possible

National list of vocational training courses	List of trades and individual activities. Names of Trades Analytical index - INSEE 1968
Mines and quarries (extraction) masonry	Marble mason - stone engraver stonecutter - brick & tile maker
Building	Cement maker - tile layer/ mosaicist - mason - plasterer plasterer/painter
Roofing, plumbing, heating	Central heating fitter - plumber roofer - zinc roofer
House-painting, industrial painting	Picture framer - house-painter mason specializing in decorative staff work - decorator - sign-writer - scene painter
Production and initial transformation of metals. Smelting, rolling, casting	smelter of precious metals - gold-beater - precious metal roller - manual caster/core maker
Forging, coppersmithing, metallic structures, related training	Shoeing-smith - builders' hardware merchant - wrought-iron worker - panel beater/bodywork repairer - sheet-iron worker oxyacetylene welder - cutler cutlery polisher - motor vehicle radiator repairer - coppersmith/ sheet-iron worker - sheet-iron worker/former - ironworker - arc welder
General and precision mechanics. Work with machine-tools automation.	Bicycle and motorcycle mechanic - agricultural machinery - motor vehicle mechanic - office machine mechanic - general mechanic - metal fitter - metal fitter/scale maker - gunsmith - refrigeration mechanic - turner - miller- clock and watch maker
Electricity, electronics, electromechanics	Motor vehicle electrician - electrician/fitter/installer - electrician/coil winder
Electronics	Radio and television engineer/ fitter/breakdown mechanic

Glass and ceramics	Glass-blower - glazier - mirror cutter/mounter - jobbing mirror cutter - lapidary - glass and crystal cutter - earthware and porcelain maker - potter - ceramist
Photography, graphics (photogravure, composition, printing)	Photographer - photoengraver - offset photogravure worker - linotypist - printer - letterpress compositor - operator of litho and offset machines - operator of letterpress machines - operator of photoengraving machines
Paper and cardboard	Sticher - manual bookbinder - cardboard maker - hand-made paper maker
Chemistry, physics, biochemistry, biology, chemical production.	Silver-plater/mixer - wax chandler - electro-plater
Baking, pastry-making	Baker - pastry-cook
Slaughtering, meat	Tripe-dealer - butcher - horse-butcher - pigmeat butcher
Other specialized fields in the foodstuffs trade (processing, preparation.)	Confectioner - brewer - miller - caterer - milk and butter dealer - cheesemonger
Textiles: combing, spinning, weaving, hosiery, textiles	Stiffener/bleacher - dyer/cleaner - weaver - hand knitter - invisible mender
Clothing, materials, cutting, needlework, embroidery, linen-drapery, clothing, manufacture, furs, hat and cap making, upholstery, mattress-making.	Ready-made clothier - sewing-maid making made-to-measure clothes - fur sewer - piece-worker - men's outfitter - made-to-measure corset maker - milliner - furrier - orthopaedic corset maker - laundryman - tailor - dress-maker - ladies' couturier - underwear fitter - hand embroid erer - hat and cap maker - floor-covering layer - furniture upholsterer - maker of motor vehicle upholstery and fittings - ironer

Skin and leather work, tanning, tawing, furriery, currying, shoemaking, saddlery, fancy leather work, industrial manufacture of footwear	Shoemaker/repairer - boot and shoemaker - orthopaedic boot-maker - harness-maker - saddler - sheath maker - fancy leather worker - skin-glove maker - tanner/tawer
Woodwork: sawing, joinery, cabinet-making, cartwright's work, cooperage, other specialized woodwork fields	Wood sawer/cutter - worker in heavy timber - joiner - carpenter - cabinet-maker - model builder - stringed-instrument maker - wooden-body builder - cartwright - wet cooper.
Operation of land machinery, building site machinery, lifting appliances, haulage machinery and agriculture machinery	Well-sinker
Other training courses in the industrial and agricultural sectors	Basket worker/cane worker - artificial flower maker - wig and postiche maker - piano, harpsichord, organ and harmonium maker
Art and applied art, industrial aesthetics	Jeweller/setter of precious stones in precious metals - bronze worker - goldsmith - jeweller - metal engraver - precious metal engraver - stone engraver - copper engraver.
Health, ancillary medical work, social services	Dental mechanic - orthopaedic mechanic
Personal appearance	Manicurist - beautician - men's hairdresser - ladies' hairdresser - hairdresser

N.B. The list of trades set out above is an extract from the groups of training courses contained in the national list of training courses.

It makes it easier to find those craft trades in which an apprenticeship is possible.

This list, which is not exhaustive, provides a guide to the principal craft trades.

APPENDIX I

BACKGROUND TO THE EUROPEAN COMMUNITY

Structure of the European Economic Community

The main bodies of the EEC comprise the European Commission, the Council of Ministers, the European Parliament, the Court of Justice and a plethora of advisory committees among which the Economic and Social Committee occupies an especially important position. The Commission and the Council provide the main day to day impetus in the work of the EEC. The Commissions make policy proposals to the Council of Ministers after consulting a wide range of interested parties. The Council of Ministers makes the final decision. The ministers involved depend on the subject under discussion, so in the case of educational decisions they would be ministers of education and, if vocational education is under discussion, ministers of labour as well. The Council of Ministers makes its final decision after consulting the European Parliament, the Economic and Social Committee and the Court of Justice - the ultimate court of appeal if the directives of the EEC are seen to be being broken.

The Commission initiates legislation by submitting draft regulations, directives or recommendations to the Council for decision. Thus it initiates activity and is then responsible for the implementation of decisions (having the power to take firms who disobey EEC rules to the Court of Justice).

The Commission has 13 members, two each from France, Germany, Italy, the UK and one each from Belgium, Denmark, Eire, Luxembourg and the Netherlands. Once appointed, the Commissioners are no longer national representatives but community statesmen pledged to act independently in the common interest.

In the Council of Ministers in the educational context there is one minister per member state and two from Belgium, making a total of 10. The Presidency of the Council is rotated and is held for a term of six months. Any decisions which concern new policy or mean legislation for the member states have to be taken by unanimous vote. Modifications of existing policies can be taken by various forms of majority vote.

The European Parliament has members elected by the voters of the countries they represent. They are grouped within the Parliament, by political affiliation. The Parliament is concerned with opinions and questions rather than power. It cannot block decisions of the Council of Ministers but it can put pressure on national parliaments in its function as an information channel.

The Court of Justice has nine judges. It operates by majority decision and is the supreme appeal court for Community law.

Among the 70 or more consultative bodies relating to the community's work, the Economic and Social Committee, which has weighted representation, covers employers, trades unions and vested interests and has to be consulted by the Commission and the Council of Ministers on all major proposals. It may also give advice on its own initiative. Like the European Parliament it is a communication channel in which members can find out what is going on and apply pressure.

The Council is able to make a range of decisions.

1. A Regulation which is binding and immediate in all member states;
2. A Directive which is binding as to result but not as to method, i.e. member states must ensure policy is implemented but the method by which they decide to do so is variable and open to manoeuvre;
3. A Decision which is binding in its entirety to those to whom it is directed i.e. it may not be directed at a member state but at a particular industry within each member state;
4. Recommendations and Opinions which are not binding but merely have the weight of advice.

Vocational Education and Training

Education is not mentioned in the Rome Treaties, although vocational education is clearly a factor which affects the mobility of the work force. Vocational education is handled in the Directorate General responsible for social affairs. On vocational education there was a Council decision in 1963 which was binding to those on whom it was directed. It laid down a number of vague principles for a common policy on vocational training:

1. For a common policy and programme of action;
2. That the constituent members of the six[1] should have the right to enjoy vocational training and appropriate facilities should be provided for an appropriate labour force. Vocational training for workers should be combined with a liberal education for the individual and the highest level of training should involve the development of intellect, the formation of character, education for citizenship and physical development. There should also be retraining and 'education permanent';
3. Manpower planning and general orientation of training to manpower needs, accompanied by guidance and information;
4. Research projects should be encouraged, mobility

should be encouraged, there should be an inventory of current practice, and there should be an encouragement of bilateral and multilateral agreements;

5. The dissemination of information;

6. Exchange and study visits;

7. Improved instructor training, especially in the regions;

8. Levels of training and harmonisation of qualifications should be brought into line. There should be encouragement of European competitions, tests and examinations;

9. An attempt to relate training provision and programmes to overall community needs.

European officials[2] tend to agree that there has been a lack of success in obtaining a common policy on the lines of the principles laid down in 1963. They ascribe that lack of success to the fact that there is no methodology to translate abstract principles into concrete action and the fact that there has been insufficient distinction between short term activities, i.e. exchange of information, exchange of students, and long term ones, i.e. harmonisation. In other words, the principles have been no more than a code of good practice and the argument is that there should be a new orientation towards the exchange of personnel and ideas - jointly financed.

This would mean moving from grand concept to low key activity and to short term realisable projects which ultimately mount up into a bigger concept in the area of information, exchange, mobility, research, co-operation and resource pooling.

In 1971 the Council adopted guidelines for vocational education to provide general vocational further education for individuals to develop their personalities and follow a skilled trades. This is a reiteration of the 1963 principles. However in 1974 a Regulation was passed that a Vocational Training Centre should be set up in Berlin in 1976.

Broadly, the Centre is concerned with documentation, research, structure (i.e. common structures and harmonisation of existing structures as a long term project), information, an attempt to create a common vocabulary of terms applying to nature and levels of training, technical terms and putting forward criteria for qualifications. Its operation is by research, seminars and publicity. A major preoccupation is transition from education to work.

The current preoccupation within the EEC is, of course, with unemployment and retraining. But there is a budgeting problem and a certain cynicism that retraining might mean retraining for further unemployment.

General Educational Policy

In November 1971 the Council of Education Ministers met for the first time. They recognised the need for co-operation in education and set up a working party of senior officials.

In 1972 the Commission asked Janne, the former Belgian Minister of Education, to formulate suggestions for an education policy, this was presented to the Commission in January 1973. It was 'warmly welcomed by the Commission', but .... The methodology might have been said to be rather sketchy and inconclusive, but the ideas were interesting. Briefly, Janne argued in favour of harmonisation in three currently developing areas: 16-19 education, educational technology, and 'education permanent'. Although the concept was acceptable, there was an impossibility of policy agreement on such a large budget area. The scale was too broad for the EEC at that point in time. Therefore educational activity was moved back into a number of low budget specific areas:

1. The equivalence of qualifications;
2. The mobility of teachers and administrators;
3. The teaching of foreign languages and co-operation in development of material in this area;
4. The education of the children of migrant workers.
5. The transition from education to work.

FOOTNOTES

1. Now nine.
2. and see Fred Jarvis - 'Educational Implications of Memership of the EEC'.NUT publication, August 1972.

APPENDIX II

BACKGROUND TO THE EUROPEAN COMMUNITY VOCATIONAL TRAINING PRINCIPLES

Within the EEC Commission vocational training is handled by Directorate General 5 - Social Affairs. Other aspects of education are handled by Directorate General 12 - Research, Science and Education. A Council decision in April 1963 laid down general principles for the implementation of a common policy on vocational training. They are as follows:

First Principle

By a common policy on vocational training shall be meant a common, coherent and progressive action whereby each member state shall work out programmes and carry out schemes in accordance with the present general principles and the resulting measures for their application. The general principles must enable all to receive adequate training with free choice of occupation, of the establishment and place of training and of the place of work. The principles concern the training of young people and adults preparing for employment or already employed, up to the level of middle management. The implementation of these general principles within a framework of the treaty is the responsibility of the member states and of the appropriate community institutions.

Second Principle

The common policy on vocational training must be directed towards the following basic objectives:

(a) To create conditions under which all can enjoy the right to adequate vocational training.

(b) To organise in due course appropriate facilities to ensure the labour force needed in the various sectors of economic activities.

(c) To make vocational training wide enough on the basis of general education to encourage the harmonious development of the individual and to meet the requirements of technical progress, renovations in the organisation of production and of economic and social development.

(d) To enable all to acquire the highest technical knowledge and skill needed to perform a given job and to attain the highest possible level of training whilst at the same time encouraging, more especially in respect of young people, the development of character, education and citizenship and physical development.

(e) To offer each person according to his ambition, aptitudes, knowledge and working experience, by means of permanent facilities for further training, access to a higher occupational level of the same trade or profession or preparation for a different trade or profession at a higher level.

(f) To establish closer contacts between the various forms of vocational training and the various economic sectors so that vocational training may be geared to manpower needs and best serve the interests of trainees and so that economic and occupational circles may in general take the interest in vocational training problems that they merit.

Third Principle

In the implementation of the common policy on vocational training the following must be regarded as particularly important:

(1) Forecasts and estimations of labour requirements in numbers and skills in the various fields of production at national and community level.

(2) Promote vocational information and guidance in occupational advice services organised to help both young people and adults based on knowledge of individual aptitudes, of means of training and opportunities for employment and supported by a close co-operation between the production and distribution sectors. The departments concerned with both vocational training and the schools with general education.

(3) Availability of the above mentioned services to all at the appropriate time before they choose their occupation throughout training and throughout their working career.

Fourth Principle

In accordance with the present general principles and with a view to attaining their objectives set out therein the Commission may propose to the Council or to the member states within the framework of the treaty any appropriate measures which may prove necessary. Moreover, the Commission will, in co-operation with the member states, carry out studies and research in a field of vocational training to follow the common policy, notably with a view to improving opportunities of employment and the geographical and occupational mobility of workers within the Community. In addition, it will establish an inventory of training facilities in the member states comparing them with current needs with a view to recommending to the member states suitable sources of action indicating where necessary an order of priority if thought fit. It will encourage the conclusion of bi-lateral and multi-lateral agreements. The Commission will note the development of these courses of action, compare the results that are obtained and involve the member states thereof. In

carrying out its tasks in the field of vocational training the Commission will be assisted by a tripartite advisory committee, the composition and rules of which will be determined by the Council after consulting the Commission.

Fifth Principle

In order to promote a wider knowledge of all facts and publications and trends in vocational training within the Community and in order to promote the modernisation of the teaching materials and methods used, the Commission will take appropriate steps to assemble, disseminate and exchange between the member states all useful information, documentation and teaching materials. It will in particular ensure the systematic distribution of documentary material concerning all innovations introduced or being developed. For their part the member states will furnish to the Commission all assistance and support necessary for it to carry out these various tasks and will supply in particular any useful information on the situation and the development of national systems of vocational training.

Sixth Principle

The Commission will, in co-operation with the member states, encourage any direct exchanges of experience in the field of vocational training which might enable the relevant departments and specialists to inform themselves of the scheme in operation and innovations introduced by the other community countries. These exchanges shall in particular take the form of study seminars and programmes of visits to and periods spent in vocational training institutions.

Seventh Principle

One of the basic elements in the effective policy on vocational training is the training of teachers and instructors who should be increased in numbers and whose technical and teaching abilities should be raised. The member states will encourage, if necessary with the Commission's assistance, any measures to improve and develop such training, particularly measures devised to ensure adaptation to progress made in economic and technical fields, the training of instructors recruited among highly skilled workers shall be encouraged. Efforts shall be made to align the training instructors. In this process exchanges of experience and other appropriate measures of the kind mentioned in the Sixth Principle would be helpful. Special steps shall be taken to promote in the community countries the training and further training of teachers and instructors who are to work in the less favoured regions of the community and in the developing states and territories, notably those associated with the Community.

Eighth Principle

The common policy on vocational training must among other things

aim at a progressive alignment of levels of training. In association with the member states the Commission will, where necessary, as regards various occupations for which a certain training is required draw up a harmonised summary of the essential requirements stipulated for access to the various levels of training. On this basis steps will be taken to bring into line the requirements for success in final tests or examinations so as to lead on to the mutual recognition of certificates or other qualifications awarded on the completion of training courses. The member states in the Commission will encourage the holding of European competitions and tests.

Ninth Principle

The member states and the Commission may together take appropriate measures, in particular establishing suitable training programmes to assist in securing an overall balance between labour supply and demand in the Community, having due regard to forecasts made for this purpose. Such measures or programmes must take as their aim the fast training of adults in occupational changes and retraining with due regard to situations arising from economic expansion or recession, technological and structural changes and the requirement peculiar to certain occupations, categories of work or particular areas.

Tenth Principle

In implementing the general principles of the common policy on vocational training, attention will be given to special problems relating to particular sectors of activity or categories of people.

Special courses of action may be undertaken to this effect. Action undertaken for the attainment of the objectives of the common policy on vocational training may be jointly financed.

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